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# Reports

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*Dennis P. Petri and John T. Bainbridge*

## Subnational Divergence in Religious Freedom

A Variance-Based Approach to  
Democratisation in Latin America

2026/14

International Institute  
for Religious Freedom



International Institute  
for Religious Freedom

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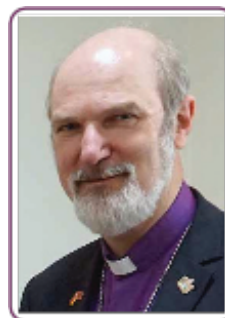
We understand Freedom of Religion and Belief (FoRB) as a fundamental and interdependent human right as described in Article 18 of the Universal Declaration on Human Rights. In line with CCPR General Comment No. 22, we view FoRB as a broad and multidimensional concept that needs to be protected for all faiths in all spheres of society.



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IIRF Reports Vol. 15 – 2026/14

This report is a reprint from: Petri, D. P. & Bainbridge, J. T. (2026). Subnational Divergence in Religious Freedom: A Variance-Based Approach to Democratisation in Latin America. *Journal of Politics in Latin America*, 1–32.  
<https://doi.org/10.1177/1866802X261446653>

*Dennis P. Petri and John T. Bainbridge*

## **Subnational Divergence in Religious Freedom**

A Variance-Based Approach to Democratisation in Latin America

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## CONTENTS

Abstract .....	5
Introduction.....	5
Literature Review .....	6
Subnational Authoritarianism and Territorial Democracy.....	6
Religious Freedom as an Understudied Dimension of Democratisation .....	7
Territorial Fragmentation of FoRB Conditions .....	8
Measuring Religious Freedom: Strengths and Gaps .....	9
Methodological Precedents for Measuring Divergence.....	9
Data and Methodology .....	10
Data Sources.....	10
Comparison Strategy: Matching Actor Types .....	11
Variance and Divergence Analysis .....	11
Case Selection for Cross-National and Subnational Analysis .....	13
Findings.....	13
Cross-Indicator Divergence .....	13
Temporal Divergence .....	16
Subnational Divergence in Religious Violence .....	19
Discussion .....	25
References .....	29

## Abstract

This study assesses the extent to which national-level indices of freedom of religion or belief (FoRB) fail to capture subnational variation in FoRB-related violence in Latin America. Drawing on the Violent Incidents Database, which documents state and non-state FoRB-related violence from 2017 to 2024, we compare these empirical events with national-level indices such as Pew's Government Restrictions Index, the Social Hostilities Index, and V-Dem's religious freedom measure. These national-level indicators tend to report Latin American countries as relatively free in terms of religious rights, but do not capture substantial temporal and subnational divergence in FoRB violations, particularly in federal states, remote territories, and indigenous autonomy zones. We suggest that democratic erosion and FoRB repression in Latin America frequently occur unevenly and remain undetected by national scores, calling for more granular approaches to democratic assessment.

## Introduction

The aim of this study is to assess the extent to which national-level indices of freedom of religion or belief (FoRB) fail to capture subnational variation in FoRB-related violence in Latin America, and to propose a methodological framework for detecting this divergence. We argue that localised patterns are frequently invisible in the national-level indicators of FoRB, which tend to report Latin American countries as relatively free in terms of religious rights. To address this gap, this study employs the Violent Incidents Database (VID), a novel event-based dataset, that enables systematic analysis of within-country geographic variation in FoRB violations across Latin America.

Drawing on the VID, which documents state and non-state FoRB-related violence from 2017 to 2024, we analyze counts of violent incidents across Latin American and some Caribbean countries and their subnational units. We compare these event-level patterns with national-level indices such as Pew's Government Restrictions Index (GRI), the Social Hostilities Index (SHI), and V-Dem's religious freedom measure. This event-based approach enables analysis previously impossible: mapping where violations occur within countries, identifying which actors perpetrate them, and tracking how both dimensions change over time. Empirically, we demonstrate that subnational variation in FoRB violations is substantial, revealing patterns of territorial inequality in rights enforcement.

This study contributes to the literature on religious freedom and democratisation in Latin America by highlighting methodological and empirical gaps. Methodologically, we critically assess the adequacy of national-level indicators in capturing FoRB violations to a much greater degree of geographical granularity. In several federal countries, FoRB-related violence is highly concentrated in a small number of provinces or states, yet national-level indices are not designed to detect this geographic concentration. For example, in Mexico, the VID reports a high number of non-state FoRB incidents concentrated in specific states, but Mexico's national GRI and SHI scores (which aggregate conditions at the country level) report only moderate restrictions and cannot capture this subnational variation. Moreover, temporal patterns often diverge. Subnational incident data shows sharp increases or fluctuations in violence that are not mirrored in annual index values.

By calculating actor-specific spatial and temporal variance in violent incident counts and contrasting these patterns with the relatively static trajectories of national-level FoRB metrics we demonstrate that subnational FoRB patterns are not captured in current national-level measurement tools. This divergence is particularly pronounced in federal states, remote territories, and indigenous autonomy zones, where protections are uneven and often weakest and where both state and non-state actors impose coercive religious norms. This finding underscores the need for subnational, actor-sensitive approaches to measuring religious freedom as a dimension of democratic quality.

The remainder of the article is organised as follows. The second section reviews the existing literature on FoRB measurement, its marginalisation within democratisation studies, and the conceptual relevance of subnational authoritarianism. The third section outlines the data sources and analytical methods, including the use of actor-specific divergence metrics. The fourth section presents the empirical findings, and the fifth section discusses their implications for FoRB measurement and democratic theory.

## Literature Review

This review is organised in two parts. The first focuses on theory: the ‘Subnational Authoritarianism and Territorial Democracy’ section explores the concept of subnational authoritarianism and its relevance for understanding uneven rights enforcement, while the ‘Religious Freedom as an Understudied Dimension of Democratization’ section positions FoRB as an essential yet underexamined dimension of democratisation. These discussions set the stage for the second part, which turns to methodological framing. The “Territorial Fragmentation of FoRB Conditions” section discusses the territorial fragmentation of FoRB conditions; the “Measuring Religious Freedom: Strengths and Gaps” section assesses the strengths and limitations of existing FoRB indices; and the “Methodological Precedents for Measuring Divergence” section introduces methodological precedents for capturing subnational divergence through statistical variance.

### Subnational Authoritarianism and Territorial Democracy

The uneven territorial application of democratic norms is a well-documented phenomenon in Latin America and beyond. Guillermo O’Donnell’s foundational concept of ‘brown areas’ – regions where the state fails to establish the rule of law and where democratic institutions coexist with authoritarian practices – has shaped much of the literature on subnational governance (1993). These areas often fall outside the effective reach of central authority and reflect disconnect between constitutional guarantees and their enforcement. In such spaces, rights – including FoRB – may be formally protected but are effectively suspended in practice.

Building on O’Donnell’s insight, subsequent scholars have explored how national-level democratisation can mask the persistence of authoritarian enclaves at the subnational level. Gibson (2005, 2013) introduced the concept of ‘boundary control’ to explain how subnational elites manipulate territorial and institutional boundaries to maintain local dominance while avoiding national oversight. Giraudy (2015) extended this framework to federal systems in Latin America, showing how governors in weakly institutionalised regions can consolidate power through clientelist networks, co-optation, and selective en-

forcement of rights. These studies document the ways in which state weakness, political instability, and clientelism create the conditions for what has come to be known as ‘subnational authoritarianism.’

## Religious Freedom as an Understudied Dimension of Democratisation

Despite being a core civil liberty, FoRB remains largely peripheral in mainstream democratisation research. Scholarship on religion and democratisation has expanded in recent decades (Cesari, 2016; Driessen, 2014; Haynes, 2016; Künkler and Leininger, 2009), examining how religious institutions, movements, and identities interact with democratic transitions and consolidation. While this literature has enriched our understanding of religion's complex role in political change, including both democratising and authoritarian tendencies, it has largely focused on institutional arrangements, elite behaviour, and macro-level relationships between religious and political authority. Less attention has been devoted to religious freedom itself as a dimension of democratic quality, particularly as experienced by minority communities at the local level.

This marginalisation is reflected in widely used democracy indices. For instance, the Polity dataset does not include a FoRB variable at all. While the Cingranelli-Richards (CIRI) Human Rights Data Project and V-Dem both include a question on religious freedom, these variables are limited in scope, focusing only on state restrictions and embedded within broader batteries of civil liberty indicators. It is telling that the religious freedom variable is excluded from V-Dem's ‘core’ dataset, signalling its perceived secondary status even within one of the most expansive political science datasets.

Democratic theory has long recognised that pluralism requires institutional arrangements that allow diverse beliefs to coexist (Stepan, 2000). Stepan's ‘twin tolerations’ (the mutual independence of religious and democratic authorities) provides one framework for understanding how democracies can accommodate religious diversity. Yet violations of FoRB, particularly when perpetrated or tolerated by the state, represent fundamental challenges to pluralistic governance. Fox (2021) argues that religious freedom encompasses not merely tolerance but active protection of the right to practice, change, and proselytise. His cross-national analysis reveals that even established Western democracies often restrict religious freedom in practice, particularly for minority communities. When FoRB is suppressed, especially along ethnic, religious, or geographic lines, it frequently correlates with other forms of democratic deficit (Martínez-Torres, 2020).

Latin America presents a compelling context for examining the intersection of FoRB and democracy. While constitutional protections for religious freedom are widespread across the region, these formal guarantees are not always realised in practice. Localised repression, social hostility, and structural forms of discrimination persist, particularly in rural, indigenous-majority areas, evangelical strongholds, and zones of contested state authority. As we argue in this study, these localised patterns often remain hidden in the national-level indicators presented above, which tend to portray Latin American countries as relatively free in terms of religious rights.

In the global comparative perspective, Latin American countries generally score favourably on national-level religious freedom indices. Pew's GRI typically classifies most Latin American states as having ‘low’ to ‘moderate’ government restrictions, while the SHI similarly indicates relatively low levels of societal

pressure compared to regions like the Middle East or South Asia. These favourable assessments at the national level contrast sharply with documented cases of severe localised repression, particularly affecting religious minorities in indigenous territories, rural areas, and zones of contested governance, particularly by non-state groups.

This study explores whether subnational divergence in FoRB conditions reflects broader patterns of uneven democratisation, as FoRB patterns may serve as a diagnostic indicator of territorial inequality in rights enforcement. This argument aligns with recent scholarship on subnational undemocratic regimes. Klocek and Petri (2023) observe that even in formally democratic countries, localised authoritarian enclaves persist and produce significant variation in rights enforcement. Harbers and Ingram (2014) identify subnational undemocratic regimes in Mexico, a pattern that may well correlate with localised FoRB violations.

## Territorial Fragmentation of FoRB Conditions

Having established the theoretical significance of FoRB for democracy, and its vulnerability in subnational authoritarian contexts, this section examines how territorial fragmentation specifically affects the realisation of FoRB protections. As a result, FoRB datasets give little attention to the local scale. Although the methodologies of most FoRB datasets indicate they take local variations into account when relevant, their primary focus is the national level.

Subnational divergence in religious freedom is not merely a statistical irregularity but a manifestation of a deeper phenomenon: the territorial fragmentation of civil liberties. In many Latin American countries, especially those with federal or decentralised systems, the state's ability to uphold constitutional rights is geographically uneven. FoRB protections often fail to reach entire regions where the state is absent, co-opted, or complicit in local forms of repression. These are typically peripheral zones – rural, indigenous-majority, evangelical strongholds, or areas where governance is contested by criminal, paramilitary, or ideological actors.

In such environments, formal guarantees of religious freedom are undercut by weak enforcement mechanisms and political disincentives to protect minority rights. In indigenous autonomy zones, customary law systems may restrict religious conversion or practice in ways that conflict with national constitutional guarantees, yet central governments often lack either the capacity or political will to intervene (Petri, 2023; Petri and Klocek, 2025; Reguart Segarra, 2021). In criminal-controlled territories, particularly in northern Mexico, religious groups face extortion, violence, or forced displacement when their activities are perceived as threats to criminal authority or when they refuse to cooperate with illegal economies (Petri and Glasius, 2022; Sotelo Aguilar, 2017). The coexistence of progressive national legislation with systematic local impunity highlights a key tension in the region's democratic fabric.

While global FoRB indices highlight little to no problem in much of Latin America, this is largely a consequence of their reliance on national-level aggregates. Such tools offer a general view of a country's legal and institutional environment but often fail to detect how rights are experienced by vulnerable communities. The advent of event-level data – such as that provided by the VID – now makes it possible to reveal these hidden patterns.

Klocek and Petri (2023) highlight the importance of studying subnational zones of lawlessness in federal states. These areas often operate under distinct legal logics, where national constitutional protections are selectively or wholly

unenforced. As they argue, the existence of such regions suggests that subnational divergence is not an exception but a structural feature of contemporary Latin American governance. This study builds on that insight by showing how FoRB is especially susceptible to such fragmentation.

## Measuring Religious Freedom: Strengths and Gaps

The territorial inconsistencies in FoRB protections underscore the limitations of existing measurement instruments, including their capacity to detect subnational divergence. Over the past two decades, quantitative measurement of religious freedom has grown substantially, with several global indices now offering insights into patterns of restriction and discrimination across countries. Among the most widely used are the Pew Research Center's GRI and SHI, V-Dem's `v2clrelig` variable, and the Religion and State (RAS) dataset. Each of these tools makes a distinct contribution to the comparative study of FoRB.

Pew's GRI and SHI are published annually and represent perhaps the most influential global FoRB indices (Klocek, 2019). The GRI captures legal and policy-based restrictions imposed by governments, while the SHI measures acts of religious hostility carried out by individuals, social groups, or organisations (Grim and Finke, 2006, 2011). Both are limited to national-level scores and are currently available only through 2022.

The V-Dem dataset provides a complementary approach through its `v2clrelig` variable, which assesses the extent to which the government respects religious freedom as part of civil liberties (Coppedge et al., 2021). Based on expert-coded assessments, it includes data through 2024 but is also aggregated at the national level. Detailed coding procedures are discussed in the 'Data Sources' section.

The RAS dataset provides a more granular taxonomy of religion–state interactions (Fox, 2024; Fox et al., 2018). However, the publicly available dataset currently extends only through 2014. See the 'Data Sources' section for how we incorporate these various measures in our analytical framework.

The global FoRB indices are not designed to detect localised repression, regional enclaves of authoritarianism, or shifts in FoRB dynamics at the subnational level. The reliance on national aggregates can obscure serious violations that are geographically concentrated or linked to specific subnational actors (Marshall, 2021; Petri, 2022; Schirrmacher, 2016).

In response to these limitations, a small but growing body of research has begun to focus on subnational religious regulation. Research on subnational religious regulation spans China and Russia (Koesel, 2014; Yang, 2013), Indonesia (Buehler, 2013; Salim, 2015), Southeast Asia (Achilov and Shaykhutdinov, 2013; Woods, 2018), and the United States (Fallon, 2013; Hummel, 2020; Kim, 2014), with cantonal comparisons in Switzerland (Helbling and Traunmüller, 2016) providing precedent for subnational FoRB analysis, which remains underdeveloped in Latin America (Klocek and Petri, 2023).

## Methodological Precedents for Measuring Divergence

To overcome the limitations discussed above, this final section surveys methodological approaches capable of detecting subnational variation, specifically those using variance-based and disaggregated data strategies. A growing body of literature has emphasised the value of statistical dispersion and variance as tools for identifying divergence in developmental and democratic trajectories

(Gelman, 2005; Lebedeva, 2013). Pritchett (1997) argued that variance across time and space can be as informative as mean-level trends when assessing development outcomes. Recent reports from the Varieties of Democracy (V-Dem) project have similarly used standard deviation and other measures of spread to highlight countries or regions where democratic performance fluctuates significantly or deviates from regional patterns (Lührmann et al. 2020). Measures of variation are also at the core of studies on subnational authoritarianism (Gervasoni, 2010; Harbers and Ingram, 2014; Harbers, Bartman and van Wingerden 2019). These approaches underscore that divergence itself, rather than directional change alone, can reveal important structural dynamics.

This study fills that gap by applying a simple yet powerful statistical tool – variance – to both institutional indices and event-based violence data, disaggregated by perpetrator type. We employ two complementary forms of variance: temporal variance (year-over-year change within countries or provinces) and spatial variance (cross-provincial variation within a given country-year). Together, these measures capture both the volatility of FoRB conditions over time and the degree of territorial inequality within countries, revealing mismatches between official metrics and lived experiences of repression.

The choice to use variance, rather than more complex regression models, is intentional. First, our goal is descriptive, not predictive. This study is not attempting to model causal relationships or test hypotheses about the drivers of FoRB violations. Rather, it seeks to map the blind spots of existing datasets by identifying where official national-level indicators diverge sharply from on-the-ground patterns of violence documented in the VID.

## Data and Methodology

### Data Sources

This study employs a triangulated dataset approach that integrates incident-level, governmental, and societal measures to track and analyze religious persecution and restrictions on religious freedom. The Pew Research Center's GRI and SHI are the widely recognised tools for evaluating legal and societal constraints on religious freedom. The GRI primarily captures state-imposed legal and policy restrictions but also includes variables related to the use of force by government actors and their failure to protect religious communities, which serve as indirect indicators of state-sanctioned violence. The SHI, by contrast, includes explicit variables measuring sectarian violence, mob violence, religion-related terrorism, and violence used to enforce religious norms.

The *v2clrelig* variable, provided by the V-Dem project, captures religious freedom as a civil liberty, integrating assessments of both legal guarantees and de facto implementation. The variable only covers governmental restrictions of religious freedom.

The VID seeks to complement existing approaches. The VID is a dynamic, open-access repository designed to systematically record and analyze violent incidents involving FoRB violations across all world regions. It relies primarily on publicly available reports – mainly from digital media – to document incidents in which individuals or groups are targeted based on their religious identity. Launched as a regional initiative by the Observatory of Religious Freedom in Latin America in 2017, the VID expanded globally in 2021 (Petri et al., 2025).

The VID uses discrete incidents as its unit of analysis, defined as specific events occurring at a given time and place in which individuals or groups experience harm linked to their religious identity or practices. It records such cases and records for each numbers of persons (or buildings) affected by physical violence, threats, harassment or discrimination, arbitrary detention, forced displacement, damage to religious property, and restrictions on religious practice or expression. Incidents are included when religious identity or behaviour is a salient factor shaping who is targeted or how harm is inflicted, either as a direct motive or as a condition increasing vulnerability to abuse. Incidents are geocoded at the most detailed administrative level available in source documents, including both the state/province/department level and the municipal/county level when sufficient detail is provided.

Each incident is coded according to perpetrator type as involving either state actors (police, military, government officials, or agents acting with state authority) or non-state actors (private individuals, mobs, criminal organisations, paramilitary groups, or other societal actors). When both state and non-state actors are involved, the incident is coded according to the primary perpetrator. Each incident is assigned to a specific date or, when exact dates are unavailable, to the most precise time period reported. For this study, incidents are aggregated to the annual level for comparison with other national indices that report annually.

## Comparison Strategy: Matching Actor Types

To assess the alignment between institutional metrics and real-world violations of religious freedom, this study introduces a dual-path divergence framework. The core idea is to match FoRB indicators to the types of actors they are designed to measure (state or non-state) thereby enabling a structured comparison with corresponding data from the VID. GRI and v2clrelig are compared to VID state violence; SHI is compared to VID non-state violence.

Each pairing asks a critical question: to what extent do national-level indices capture actual patterns of actor-specific FoRB-related violence as observed through incident data? The GRI and v2clrelig measure state repression from complementary angles: GRI through codified legal and policy restrictions, and v2clrelig through expert assessments of civil liberties, including the de facto application of religious freedom. These are compared to incidents coded in the VID as perpetrated by state actors, such as arrests, detentions, or violent suppression of religious expression.

Meanwhile, SHI reflects social hostilities involving non-state actors such as mobs, extremist groups, or private individuals engaging in harassment, threats, or violence motivated by religious animus. These are compared to non-state-perpetrated incidents in the VID. By aligning each indicator set with the relevant actor type, this strategy ensures a more coherent and theoretically grounded divergence analysis.

## Variance and Divergence Analysis

This section applies three complementary analytical strategies to assess the extent to which national-level FoRB indices reflect empirical patterns of religious freedom violations: cross-indicator comparison, temporal variance analysis, and subnational variance analysis. We focus on variance rather than correlation because our research question concerns whether different measurement approaches capture the same patterns of inequality and volatility. While

correlation coefficients assess whether two measures move together linearly, variance within each measure reveals the underlying patterns we seek to compare: spatial concentration, temporal volatility, and stability versus change. By comparing the variance patterns of national indices against subnational incident data, we can identify where official metrics fail to capture ground-level inequality – something correlation alone cannot reveal.

Variance must always be interpreted alongside mean values. High variance with high mean indicates fluctuating but consistently elevated levels; high variance with low mean indicates episodic spikes from a low baseline; low variance with high mean indicates persistent, stable conditions; low variance with low mean indicates consistently low levels. Throughout our analysis, we present both measures to avoid conflating volatility with magnitude.

- *Cross-indicator divergence:* To assess divergence between national-level FoRB indices and event-based data, we compare the variance of annual scores from the GRI, SHI, and V-Dem's v2clrelig variable against incident count variances from the VID. The comparison is actor-specific: GRI and v2clrelig are treated as proxies for state restrictions, while SHI is used as a proxy for societal hostility.
- *Temporal divergence:* To capture shifts over time, we calculate year-to-year variance in VID incident counts within each country, again disaggregated by actor. These results are compared with the trajectories of GRI, SHI, and particularly v2clrelig scores over the same period (2017–2024).
- *Subnational divergence in religious violence:* Our subnational analysis employs two distinct variance measures. Temporal variance calculates year-to-year variation within a single province or state across the 2017–2024 period, indicating whether that location experiences stable, persistent patterns or volatile, episodic spikes in FoRB incidents. Spatial variance calculates variation across all provinces or states within a single country-year, indicating the degree of territorial inequality – whether violence is concentrated in a few locations or distributed more evenly. We compare our provincial incident measures with existing subnational democracy scores where available.

Although the different metrics analyzed in this study measure distinct aspects of religious freedom, the analysis does not compare their absolute values directly but focuses on patterns of temporal and spatial variance, interpreted alongside mean values. To ensure comparability across disparate data sources with varying scales, all variables were normalised to a 0–10 range.

The V-Dem variable v2clrelig, originally scored from –4 to +4, was rescaled to align with the 0–10 format used by Pew's GRI and SHI, which range from 0 (low restriction/hostility) to 10 (high). We applied a two-step transformation to v2clrelig: first, scaling it to a theoretical maximum of 10 (v2clrelig\_10), and second, normalising this rescaled variable based on the maximum observed value in the regional dataset (v2clrelig\_10\_norm). This dual adjustment corrects for scale mismatches and ensures greater comparability with incident-level variables, which were also normalised using regional maximums. As such, it supports more consistent analysis of divergence and variance across indicators.

To enable cross-country comparability, we also normalised incident counts from the VID. Because countries vary widely in population size, using raw counts

would distort comparisons by overstating the incidence in more populous countries. We therefore standardised both state and non-state FoRB-related incidents on a per capita basis (per 10 million inhabitants), and then linearly re-scaled these values to a 0–10 scale (e.g., VID\_incidentcounts\_state\_pop\_norm, VID\_incidentcounts\_nonstate\_pop\_norm). This approach preserves the relative distribution of incident frequencies while aligning the data format with the scale of other indices.

It is important to recognise the limitations of using incident counts as proxies for FoRB violations. Each recorded incident can vary in severity – from administrative harassment to lethal violence – and often involves multiple individuals or religious sites. On average, each incident includes approximately four individual cases, though this figure fluctuates (Petri et al., 2025). Moreover, aggregating diverse forms of repression (e.g., killings, arrests, threats, or destruction of places of worship) into a single indicator simplifies the complexity of religious freedom violations. Despite these constraints, event-level counts remain the most viable and consistent metric for capturing temporal and actor-specific variation, especially given the absence of such granularity in existing global indices.

Finally, it is worth noting the temporal coverage of the data. GRI and SHI are available through 2022, the most recent wave of Pew’s published indices. By contrast, v2clrelig and VID extend through 2024, allowing the analysis to capture recent developments in FoRB conditions across the Americas.

## Case Selection for Cross-National and Subnational Analysis

To assess cross-indicator divergence, we included all Latin American countries for which data were available from both Pew and V-Dem. For the analysis of subnational divergence, we employ a two-stage approach. First, we concentrated on the five largest Latin American countries in terms of both territory and population – Mexico, Brazil, Argentina, Colombia, and Peru. In line with Klocek and Petri (2023), these countries were selected because subnational variation is more likely in larger states, particularly those with federal systems, expansive remote regions, or constitutionally recognised indigenous autonomy zones. Second, for spatial variance analysis, we extend the sample to all Latin American countries with sufficient subnational data, enabling region-wide comparison of territorial inequality and assessment of whether federal structures or indigenous autonomy arrangements correlate with higher spatial variance.

## Findings

### Cross-Indicator Divergence

This section presents empirical findings on the divergence between national-level indicators of FoRB – specifically the GRI, SHI, and V-Dem’s v2clrelig variable – and incident-level data from the VID. We focus on mismatches between official metrics and observed patterns of FoRB-related violence, disaggregated by state and non-state actors (Tables 1 and 2, respectively). Please refer to Supplemental Appendix Table A1 for annual means and variances by country.

Country	2017–2024	GRI_norm (0–10, 10 Worst)	v2clrelig_10_ norm	VID_ incidentcounts_ state_norm
<b>Argentina</b>	Variance	0.23	0.54	0.00
	Mean	4.48	2.94	0.01
<b>Bolivia</b>	Variance	0.05	0.40	0.00
	Mean	1.73	3.57	0.04
<b>Brazil</b>	Variance	1.17	1.13	0.00
	Mean	3.76	4.78	0.00
<b>Chile</b>	Variance	0.02	0.00	0.00
	Mean	2.67	3.37	0.01
<b>Colombia</b>	Variance	0.57	0.33	0.00
	Mean	2.88	3.98	0.03
<b>Costa Rica</b>	Variance	0.01	0.04	0.00
	Mean	4.88	3.66	0.00
<b>Cuba</b>	Variance	0.62	0.00	2.89
	Mean	9.39	8.35	2.44
<b>Ecuador</b>	Variance	0.67	0.15	0.00
	Mean	3.27	3.57	0.00
<b>El Salvador</b>	Variance	0.10	0.00	0.25
	Mean	4.27	3.15	0.27
<b>Guatemala</b>	Variance	0.87	0.00	0.00
	Mean	4.45	4.50	0.00
<b>Guyana</b>	Variance	0.88	0.23	0.00
	Mean	4.42	3.78	0.00
<b>Haiti</b>	Variance	0.34	0.06	0.00
	Mean	4.64	4.41	0.00
<b>Honduras</b>	Variance	0.41	0.00	0.00
	Mean	3.18	4.07	0.01
<b>Jamaica</b>	Variance	0.75	0.00	0.00
	Mean	3.97	3.34	0.00
<b>Mexico</b>	Variance	0.64	0.00	0.00
	Mean	6.94	4.82	0.02
<b>Nicaragua</b>	Variance	0.61	3.44	13.27
	Mean	6.15	7.20	3.59
<b>Panama</b>	Variance	1.26	0.01	0.00
	Mean	3.30	3.42	0.00
<b>Paraguay</b>	Variance	0.13	0.00	0.00
	Mean	3.55	3.13	0.01
<b>Peru</b>	Variance	0.13	0.00	0.00
	Mean	3.21	3.11	0.00
<b>Suriname</b>	Variance	0.04	0.62	0.00
	Mean	1.76	3.74	0.00
<b>Trinidad and Tobago</b>	Variance	0.42	0.22	0.00
	Mean	2.09	3.34	0.00
<b>Uruguay</b>	Variance	0.64	0.22	0.00
	Mean	2.30	3.42	0.00
<b>Venezuela</b>	Variance	1.04	0.02	0.01
	Mean	5.91	6.18	0.13

**Table 1.** State-Led FoRB Restrictions Indicator Means and Variances Comparison (2017–2024). **Note:** Values displayed as 0.00 for v2clrelig\_10\_norm may reflect rounding from very small positive values rather than exact zeroes. **Source:** Own elaboration based on the Violent Incidents Database (OLIRE/IIRF). **FoRB:** freedom of religion or belief.

Country	2017–2024	SHI_norm (0–10, 10 Worst)	VID_incidentcounts_ nonstate_norm
<b>Argentina</b>	Variance	1.08	0.10
	Mean	2.36	0.54
<b>Bolivia</b>	Variance	2.48	0.06
	Mean	4.67	0.33
<b>Brazil</b>	Variance	0.62	0.00
	Mean	7.82	0.10
<b>Chile</b>	Variance	0.59	0.13
	Mean	1.76	0.79
<b>Colombia</b>	Variance	1.75	0.68
	Mean	3.94	2.18
<b>Costa Rica</b>	Variance	0.01	0.04
	Mean	0.21	0.14
<b>Cuba</b>	Variance	0.60	0.76
	Mean	0.82	1.05
<b>Ecuador</b>	Variance	0.31	0.02
	Mean	0.97	0.11
<b>El Salvador</b>	Variance	2.08	2.18
	Mean	4.21	1.73
<b>Guatemala</b>	Variance	1.57	0.01
	Mean	3.52	0.18
<b>Guyana</b>	Variance	0.00	0.00
	Mean	0.00	0.00
<b>Haiti</b>	Variance	3.73	2.12
	Mean	6.55	1.12
<b>Honduras</b>	Variance	1.29	3.21
	Mean	4.52	2.39
<b>Jamaica</b>	Variance	0.49	0.50
	Mean	0.82	0.25
<b>Mexico</b>	Variance	0.34	0.09
	Mean	9.18	0.83
<b>Nicaragua</b>	Variance	0.63	9.14
	Mean	2.55	3.67
<b>Panama</b>	Variance	0.00	0.00
	Mean	0.00	0.00
<b>Paraguay</b>	Variance	0.43	0.09
	Mean	2.94	0.21
<b>Peru</b>	Variance	0.36	0.02
	Mean	0.62	0.20
<b>Suriname</b>	Variance	0.00	0.00
	Mean	0.00	0.00
<b>Trinidad and Tobago</b>	Variance	0.72	14.41
	Mean	2.06	2.13
<b>Uruguay</b>	Variance	1.63	0.21
	Mean	1.30	0.35
<b>Venezuela</b>	Variance	0.66	0.15
	Mean	1.91	0.77

**Table 2.** Non-State-Led FoRB Restrictions Indicator Means and Variances Comparison (2017–2024). **Source:** Own elaboration based on the Violent Incidents Database (OLIRE/IIRF).

To quantify the relationship between VID measures and national indices, we calculated Pearson correlation coefficients at the country-year level. These correlations provide evidence of convergent validity: VID and SHI show strong alignment ( $r=0.77$ ) in capturing non-state hostilities, while the moderate correlations for state-led restrictions ( $r = 0.44-0.54$ ) suggest partial overlap, with GRI and v2clrelig capturing non-violent state restrictions absent from VID, while VID may register episodic violent repression not reflected in the smoother trajectories of national indices.

The contrast is even greater for non-state FoRB restrictions, which appear more volatile. National indices often underestimate temporal variation in societal hostilities: in Honduras, SHI variance is 1.29, but VID reports a non-state variance of 3.21; in Trinidad and Tobago, SHI variance is 0.72 versus a VID variance of 14.41, the region's highest; and in Nicaragua, SHI variance is 0.63 versus 9.14. These gaps suggest that the temporal dynamics of societal hostility are not adequately captured by national-level indices, which tend to report more stable trajectories.

Some countries show strong alignment between national and incident data. Brazil and Costa Rica report consistently low variance across all sources, and Guatemala and Uruguay show similar patterns, suggesting that in low-conflict contexts national indices approximate ground realities reasonably well. A final group, including Guyana, Panama, and Suriname, also show minimal variance, possibly reflecting real stability or limited reporting. In such cases, the low variance in v2clrelig may stem partly from its expert-opinion methodology.

These patterns demonstrate what disaggregated, actor-specific incident data make visible that national indices do not capture: (1) sudden spikes in state repression during political crises; (2) volatile societal hostilities in contexts of fragile pluralism; (3) actor-specific dynamics where state and non-state violence follow different trajectories. This is not a critique of existing indices which measure structural conditions appropriately. Rather, it highlights that the comprehensive religious freedom assessment requires both structural indicators and real-time incident monitoring.

## Temporal Divergence

A defining pattern in the Latin American context is the temporal divergence between static national-level indicators of FoRB and the volatility revealed by incident-level data from the VID as shown in Figures 1 and 2.

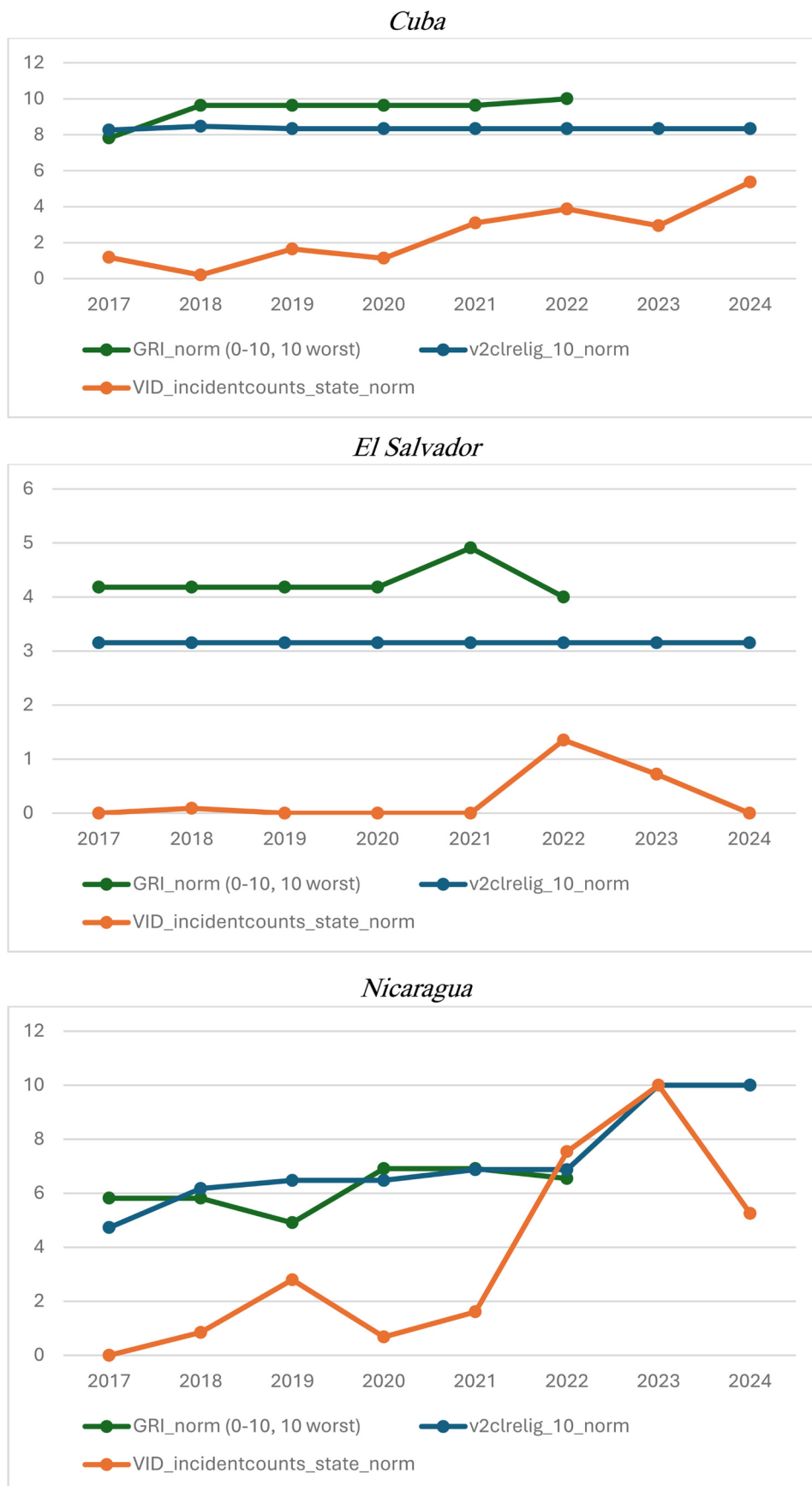
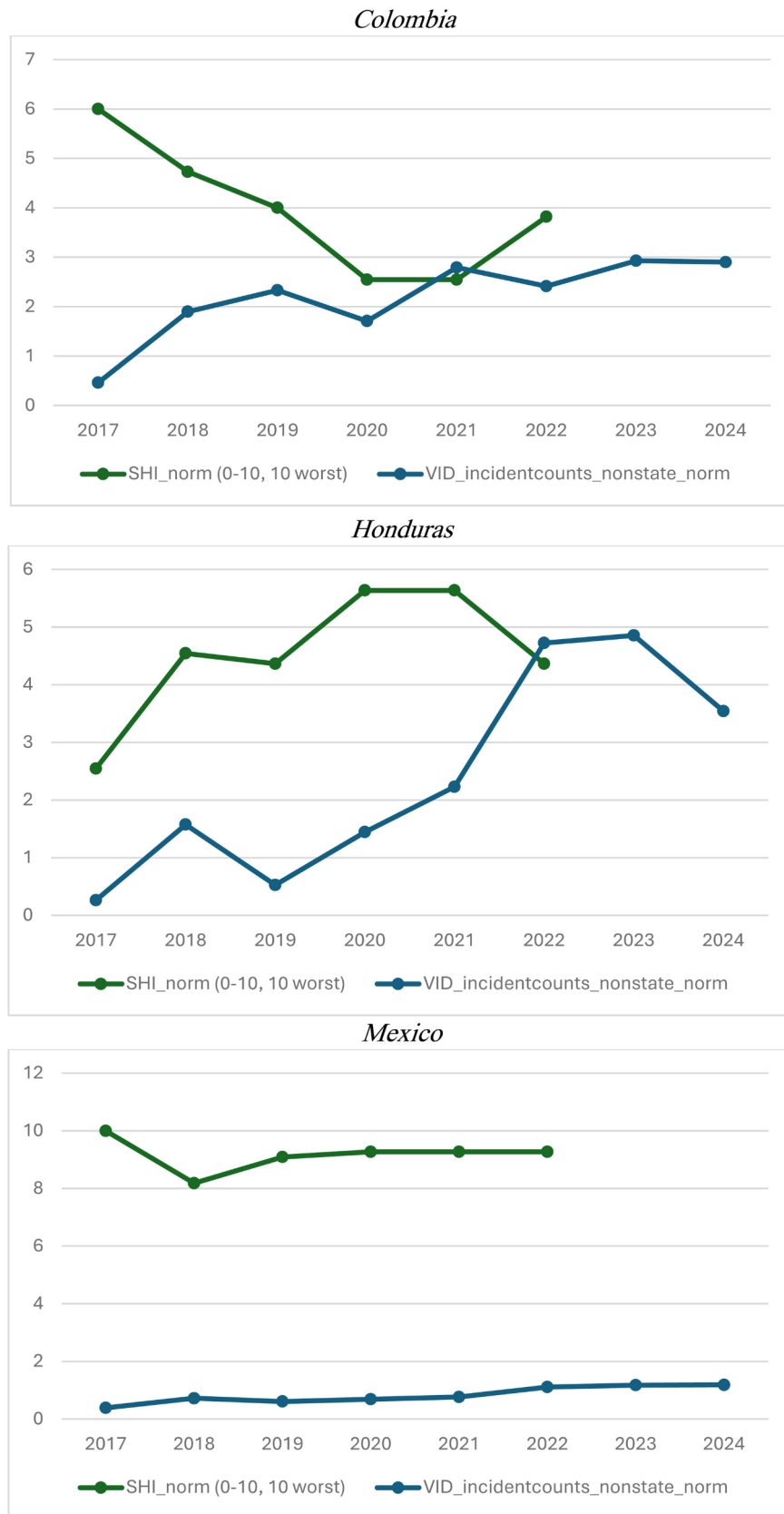


Figure 1. Temporal



**Figure 2.** Temporal divergence between non-state-led FoRB restrictions (2017–2024). **Source:** Own elaboration based on the Violent Incidents Database (OLIRE/IIRF). FoRB: freedom of religion or belief.

This mismatch is especially pronounced in Nicaragua, where  $v2clrelig$  scores increase only moderately (variance = 3.44) and GRI remains relatively stable (variance = 0.61), but state-led incident counts in VID surge dramatically – from 0 in 2017 to a peak of 10 (normalised) in 2023 – yielding a variance of 13.27, the highest among all countries analyzed. These spikes align with known episodes of religious repression under the Ortega regime, particularly against Catholic clergy and evangelical leaders. Yet, these abrupt escalations are only partially captured – if at all – by official FoRB metrics.

A similar divergence appears in Cuba, where GRI and  $v2clrelig$  remain high but flat (GRI variance = 0.62;  $v2clrelig$  = 0.003), even as state-perpetrated incidents in VID fluctuate considerably (from 0.2 in 2018 to over 5.3 in 2024), producing a state-actor variance of 2.89. These fluctuations suggest strategic adjustments in repressive tactics rather than structural reform – nuances missed by the slower-moving indices.

El Salvador demonstrates how static indices can mask volatile violence.  $V2clrelig$  shows zero variance (0.00) with a moderate mean (3.15), suggesting stable and moderate restrictions. GRI variance is similarly minimal (0.10). However, VID non-state violence shows mean of 1.73 incidents/year with variance of 2.18, reflecting an increase in 2021 followed by declines to zero in 2024. This volatility is driven by gang-related religious targeting during specific periods of territorial control contests. The mean indicates moderate overall levels; the variance indicates episodic intensity not captured in indices measuring structural conditions.

Honduras shows similar volatility, especially regarding non-state violence: despite modest SHI variance (1.29), the non-state VID variance reaches 3.21, likely tied to violence by religious criminal groups or localised power vacuums. These examples demonstrate how temporal mismatches can obscure urgent on-the-ground developments.

In Mexico,  $v2clrelig$  variance remains flat throughout the period (variance = 0.00) and SHI shows only minor early fluctuation before stabilising, yet VID records a non-trivial mean of non-state incidents (0.83) with low but non-zero temporal variance (0.09), indicating ground-level activity that national indices fail to register. Similarly, Colombia sees national scores shift gradually while VID reveals persistent – and fluctuating – non-state violence (variance = 0.68). These patterns suggest that event-based metrics are better suited to capturing dynamic or episodic changes.

## Subnational Divergence in Religious Violence

To explore how religious violence is distributed across territories rather than merely at the national level, this section examines subnational variation across Latin America. Because this analysis compares only FoRB-related incident data drawn from the same source (the VID) and on the same scale, variances can now be calculated based on raw incident counts rather than on state-population-adjusted or normalised-to-10 values. The incident-level data from the VID reveals patterns of territorial inequality that are obscured by national FoRB indices.

We present two complementary analyses. First, we examine province-by-province patterns in the five largest Latin American countries: Argentina, Brazil, Colombia, Mexico and Peru. These countries were selected because they are the largest in the region by population and land area – structural factors that, as Klocek and Petri (2023) argue, are associated with the emergence of subnational divergence in rights enforcement. Three of these (Mexico, Brazil, and Argentina)

are federal states, and at least two (Mexico and Colombia) contain de facto or de jure autonomous indigenous territories and lawless zones, further increasing the likelihood of FoRB fragmentation. For these five countries, we present descriptive statistics showing where violence is concentrated geographically (total counts, yearly averages, and temporal variance within provinces). Second, we extend the analysis to all Latin American countries with sufficient subnational data, calculating spatial variance across provinces within each country-year to quantify the degree of territorial inequality across the entire region.

Country	Subnational Entity	Total Incident Count (2017–2024), by State Actors	Annual Mean	Temporal Variance	Total Incident Count (2017–2024), by Non-State Actors	Annual Mean	Temporal Variance
Colombia	Valle del Cauca	3	0.38	0.55	84	10.5	58
Mexico	Chiapas	6	0.88	1.07	81	10.13	58.41
Mexico	Oaxaca	2	0.25	0.21	63	7.88	38.13
Colombia	Cauca	–	–	–	55	6.88	49.27
Colombia	Antioquia	–	–	–	46	5.75	6.21
Colombia	Norte de Santander	1	0.13	0.13	41	5.13	21.27
Mexico	Jalisco	–	–	–	39	4.88	15.27
Argentina	Buenos Aires	–	–	–	36	4.5	6.57
Colombia	Chocó	1	0.13	0.13	34	4.25	9.07
Colombia	Nariño	1	0.13	0.13	28	3.5	10
Mexico	Michoacán de Ocampo	–	–	–	23	2.88	5.27
Mexico	Baja California	1	0.13	0.13	22	2.75	19.36
Mexico	Guerrero	1	0.13	0.13	22	2.75	2.79
Mexico	Hidalgo	–	–	–	21	2.63	3.7
Mexico	Chihuahua	1	0.13	0.13	20	2.5	3.43
Colombia	Magdalena	–	–	–	19	2.38	4.55
Mexico	Puebla	1	0.13	0.13	19	2.38	5.7
Mexico	San Luis Potosí	1	0.13	0.13	18	2.25	2.79
Colombia	Arauca	–	–	–	17	2.13	5.27
Mexico	Sonora	–	–	–	17	2.13	2.7
Colombia	Santander	–	–	–	16	2	4.29
Colombia	Bogotá D.C.	–	–	–	15	1.88	12.7
Mexico	Morelos	–	–	–	15	1.88	2.98
Mexico	Coahuila de Zaragoza	1	0.13	0.13	14	1.75	1.64

**Table 3.** Hotspots of Religious Violence per Subnational Entity (2017–2024) in Argentina, Brazil, Colombia, Mexico, and Peru (Mean  $\geq$  1.75 Incidents/Year). **Source:** Own elaboration based on the Violent Incidents Database (OLIRE/IIRF).

Table 3 presents total incident counts, yearly averages, and temporal variance for each province or state within the five countries, disaggregated by perpetrator type. These descriptive statistics reveal both the magnitude and volatility of FoRB violence at the subnational level. As variance must always be interpreted alongside counts or means to avoid conflating volatility with magnitude, we present all three measures together.

Table 3 presents subnational units with the highest concentrations of FoRB-related violence across Argentina, Brazil, Colombia, Mexico, and Peru. Total incident count reflects the cumulative number of incidents over the 8-year period; yearly average is the mean annual incident count; temporal variance indicates year-to-year volatility within each province. Provinces with mean annual incidents below 1.75 are excluded for space but available in Supplemental Appendix Table A2. Dashes (—) indicate zero incidents. Twenty-four subnational units (15 per cent) account for 722 incidents (78 per cent of the total) across these five countries, demonstrating extreme geographic concentration.

Table 3 presents the primary FoRB violence hotspots – the twenty-four provinces or states with mean annual incident counts of 1.75 or higher (complete provincial data for all 157 subnational units appears in Supplemental Appendix Table A2). These twenty-four hotspots, representing only 15 percent of subnational units across the five countries, account for 722 incidents or 78 per cent of the total, demonstrating extreme geographic concentration.

Mexico contributes thirteen states to the hotspot list, led by Chiapas (81 incidents, mean = 10.13/year) and Oaxaca (63 incidents, mean = 7.88/year). Colombia follows with ten departments among the top hotspots. Valle del Cauca leads with eighty-four non-state incidents (mean = 10.50/year, temporal variance = 58.00), followed by Cauca (55 incidents, mean = 6.88/year) and Antioquia (46 incidents, mean = 5.75/year). Argentina appears only once (Buenos Aires province with 36 incidents) while Brazil and Peru have no provinces meeting the hotspot threshold, confirming their lower overall magnitude of FoRB violence.

While Table 3 reveals where violence is concentrated, Tables 4 and 5 quantify the degree of territorial inequality within each country through spatial variance, defined as the variance in incident counts across all subnational units within a given country-year. Higher values indicate greater territorial inequality, with violence concentrated in a small number of provinces, while lower values indicate a more even distribution, whether uniformly high or uniformly low. Table 4 reports state-perpetrated violence, and Table 5 non-state violence. Countries are ordered by mean spatial variance (highest to lowest). Governance type indicators are as follows: (F) = federal state; (U) = unitary state; (I) = de jure or de facto indigenous autonomy zones. Blank cells indicate zero variance, either because no incidents were recorded or because incidents were confined to a single province. The ‘Mean’ column shows average spatial variance across all years, with higher values indicating persistently high territorial inequality. Colombia and Mexico exhibit the highest and most persistent spatial inequality for non-state violence, while Cuba and Nicaragua show extreme spatial variance for state violence, reflecting geographic concentration of government repression.

Table 4 displays spatial variance for all Latin American countries with sufficient subnational data, revealing stark regional patterns. Table 5 (non-state violence) shows that Colombia exhibits the highest mean spatial variance (10.30), increasing dramatically from 0.64 in 2017 to 20.47 in 2023. This rising trend indicates that non-state violence has become progressively more concentrated in specific departments over time. Mexico shows the second-highest mean spatial variance (8.96), with a notable and potentially incomplete ramp-up in 2024 (25.70) driven by escalating violence in Chiapas and Oaxaca.

Table 4 (state violence) reveals a different pattern. Cuba displays extraordinary spatial variance (mean = 66.64), reaching 514.80 in 2024, reflecting the extreme concentration of state repression in Havana. Nicaragua similarly shows high spatial variance (mean = 13.85) that rises sharply from 2021 onward, corresponding to the Ortega regime's geographically concentrated crackdown. By contrast, most other countries show consistently low spatial variance for state violence, indicating either minimal state repression or more geographically dispersed patterns when it occurs.

The table also reveals governance patterns. Countries with indigenous autonomy zones (marked with I) consistently show higher spatial variance, particularly Mexico, Colombia, Nicaragua, and Chile. Federal structure alone (marked 'F') does not consistently predict higher spatial variance – unitary Colombia surpasses federal Argentina and Brazil – suggesting that territorial fragmentation stems from multiple factors including armed conflict, criminal governance, and indigenous autonomy arrangements rather than constitutional structure alone.

To assess whether FoRB spatial variance aligns with broader patterns of subnational democratic quality, we conducted a rapid qualitative comparison with existing subnational democracy measures where available. This comparison reveals clearer alignment in Mexico (Giraudy, 2010; Harbers and Ingram, 2014), where states with higher concentrations of FoRB-related violence (including Chiapas, Oaxaca, Veracruz, and Jalisco) frequently coincide with territories characterised as having weaker democratic performance in the Mexican subnational regime literature. In Argentina, the overlap is less consistent, suggesting that FoRB spatial variance does not map as directly onto existing measures of subnational democracy (Gervasoni, 2010; Giraudy, 2010). These differences indicate that the relationship between FoRB violations and democratic quality is context-dependent and mediated by factors such as criminal governance, indigenous autonomy arrangements, and local religious demography. Comparable subnational-level democracy measures are not yet available for Brazil, Colombia, Peru, and most other Latin American countries. Extending this analysis will depend on the development of such datasets, though the stronger correspondence observed in Mexico suggests that FoRB spatial variance may nonetheless serve as a useful diagnostic indicator of territorial inequalities in rights enforcement.

Country	2017	2018	2019	2020	2021	2022	2023	2024	Mean Spatial Variance	Total Incidents (2017–2024)
Argentina (F, I)	–	0.04	–	0.04	0.04	0.20	0.04	–	0.05	7.00
Belize (U, I)	–	–	–	–	–	–	–	–	–	–
Bolivia (U, I)	–	–	–	–	–	–	–	0.11	0.01	1.00
Brazil (F, I)	0.04	0.07	0.04	–	–	–	0.04	0.04	0.03	6.00
Chile (U, I)	–	–	–	–	–	0.06	–	0.06	0.02	2.00
Colombia (U, I)	–	–	0.03	0.15	0.17	0.27	0.03	0.03	0.09	13.00
Costa Rica (U)	–	–	–	–	–	–	–	–	–	–
Cuba (U)	0.25	–	0.56	1.56	4.00	2.52	9.45	514.80	66.64	359.00
Dominican Republic (U)	–	–	–	–	–	–	–	–	–	–
Ecuador (U, I)	–	–	–	–	–	–	–	–	–	–
El Salvador (U)	–	–	–	–	–	0.13	0.42	–	0.07	8.00
Guatemala (U, I)	–	–	–	–	–	–	–	–	–	–
Honduras (U, I)	–	–	–	–	–	–	–	–	–	–
Jamaica (U)	–	–	–	–	–	–	–	–	–	–
Mexico (F, I)	0.06	–	0.09	0.03	0.11	0.33	0.20	0.06	0.11	22.00
Nicaragua (U, I)	–	0.89	2.57	0.64	3.28	36.11	42.06	25.25	13.85	245.00
Panama (U, I)	–	–	–	–	–	–	–	–	–	–
Paraguay (U, I)	–	–	–	–	–	0.06	–	–	0.01	1.00
Peru (U, I)	–	–	–	–	–	–	–	–	–	–
Suriname (U, I)	–	–	–	–	–	–	–	–	–	–
Uruguay (U)	–	–	–	–	–	–	–	–	–	–
Venezuela (F, I)	–	0.39	0.19	0.04	0.56	0.22	0.11	0.50	0.25	40.00

**Table 4.** Subnational Spatial Variance of Religious Violence (2017–2024) Perpetrated by State Actors.

Country	2017	2018	2019	2020	2021	2022	2023	2024	Mean Spatial Variance	Total Incidents (2017–2024)
Argentina (F, I)	0.20	0.49	0.22	1.45	1.45	3.67	2.17	1.97	1.45	108.00
Belize (U, I)	–	–	–	–	–	–	–	–	–	–
Bolivia (U, I)	–	–	–	–	–	–	0.19	0.19	0.05	4.00
Brazil (F, I)	0.28	1.10	0.87	0.18	0.13	1.92	0.16	0.56	0.65	81.00
Chile (U, I)	0.12	0.16	1.06	0.30	–	0.60	2.40	1.00	0.70	34.00
Colombia (U, I)	0.64	4.70	5.23	2.38	15.75	16.99	20.47	16.25	10.30	414.00
Costa Rica (U)	–	–	–	–	–	–	–	–	–	–
Cuba (U)	–	–	–	–	–	0.12	2.25	10.65	1.63	38.00
Dominican Republic (U)	–	–	–	–	–	–	0.03	–	0.00	1.00
Ecuador (U, I)	–	–	–	–	–	0.04	0.04	0.17	0.03	7.00
El Salvador (U)	–	–	–	–	–	0.13	0.13	–	0.03	4.00
Guatemala (U, I)	–	–	–	–	–	–	0.05	0.05	0.01	2.00
Honduras (U, I)	–	–	–	–	–	1.36	2.10	7.71	1.40	66.00
Jamaica (U)	–	–	–	–	–	–	–	0.29	0.04	2.00
Mexico (F, I)	2.16	3.98	3.42	2.37	10.89	12.90	10.27	25.70	8.96	500.00
Nicaragua (U, I)	–	14.40	0.88	4.28	0.72	0.37	1.87	0.24	2.84	98.00
Panama (U, I)	–	–	–	–	–	–	–	–	–	–
Paraguay (U, I)	–	–	–	–	–	0.11	–	–	0.01	2.00
Peru (U, I)	0.14	0.16	–	0.36	0.39	0.36	0.19	0.48	0.26	30.00
Suriname (U, I)	–	–	–	–	–	–	–	–	–	–
Uruguay (U)	–	–	–	–	–	–	–	0.05	0.01	1.00
Venezuela (F, I)	0.36	0.19	0.27	1.81	0.99	1.89	1.51	1.67	1.09	107.00

**Table 5.** Subnational Spatial Variance of Religious Violence (2017–2024). Perpetrated by Non-State Actors. **Source:** Own elaboration based on the Violent Incidents Database (OLIRE/IIRF).

## Discussion

The findings of this study underscore a central insight: variance reveals what averages conceal because they measure different dimensions that are both important for understanding religious freedom. While national-level religious freedom indices like GRI, SHI, and v2cirelig offer useful benchmarks for cross-country comparison, they tend to smooth over sharp disparities – across actors, territories, and time – that profoundly shape real-world experiences of religious repression or freedom. When these indices are juxtaposed with disaggregated, incident-level data from the VID, a more complex and often contradictory picture emerges. Mean values indicate the magnitude and geographic concentration of FoRB incidents; variance indicates inequality across space and volatility across time. Comprehensive assessment of religious freedom conditions requires both. National-level averages provide essential context about structural and legal environments; subnational variance reveals whether those conditions apply evenly throughout national territory or are concentrated in specific regions.

First, cross-indicator divergence ('Cross-Indicator Divergence' section) shows that countries can score moderately or even positively on composite indices while simultaneously experiencing high levels of religious violence. Despite moderate correlations between VID and national indices ( $r = 0.44\text{--}0.57$  at the country-year level), substantial unexplained variance (75–81 per cent) indicates that incident-based data captures distinct dimensions of religious freedom that national aggregates do not reflect. Cases like Nicaragua and Cuba reveal particularly acute misalignment between national scores and actual state-perpetrated repression. Similarly, countries such as Honduras and Chile demonstrate high levels of societal hostilities captured by the VID but left unregistered by SHI or other perception-based instruments. These gaps matter because they suggest that who commits the violence – and where – is just as important as how much is occurring overall.

Our findings also shed light on the structural conditions that produce subnational FoRB violations. The concentration of incidents in remote territories, indigenous autonomy zones, and areas of criminal governance suggests that FoRB repression is not randomly distributed but follows predictable patterns of state capacity and territorial control. Where the state cannot or will not enforce constitutional protections – either due to geographic remoteness, political bargains with local elites, or fear of criminal actors – alternative systems of religious regulation emerge. This pattern confirms O'Donnell's (1993) insight that formal democratisation does not automatically produce democratic governance throughout national territory. The subnational frame thus reveals that FoRB violations are symptoms of broader failures in democratic state-building and territorial integration.

This does not indicate that existing indices are wrong. They measure structural and legal dimensions that remain important. Rather, it demonstrates that comprehensive assessment requires both approaches: structural indicators for understanding the policy environment, and incident-based data for tracking actual experiences of repression and violence.

Second, temporal divergence ('Temporal Divergence' section) exposes the limitations of indicators that fail to register shocks or shifts in religious freedom. As shown in cases like El Salvador and Venezuela, religious repression can escalate rapidly while national scores remain unchanged.

Finally, the subnational divergence analysis ('Subnational Divergence in Religious Violence' section) reveals three key patterns. First, FoRB violence is

extremely concentrated geographically in most countries. A small number of provinces account for the vast majority of incidents, while most subnational units record zero incidents throughout the entire period. This concentration is invisible in national-level indices. Second, temporal patterns vary substantially: some provinces experience persistent violence suggesting structural problems, while others show episodic spikes indicating acute but potentially reversible crises. Third, spatial variance itself has changed over time in several countries – particularly Colombia and Mexico – indicating that territorial inequality is not static but reflects evolving patterns of conflict, state presence, and religious demography.

These patterns underscore the limitations of national-level FoRB measurement. Countries can appear moderately free or stable at the national level while specific provinces face acute repression or violence. Our analysis reveals that governance structure shapes territorial inequality in important ways. While the relationship between federal systems and spatial variance is complex – with unitary Colombia showing higher spatial variance (mean = 10.30) than federal Argentina (mean = 1.45) – the presence of indigenous autonomy zones correlates more consistently with territorial fragmentation. This suggests that decentralised governance and territorial autonomy arrangements create conditions where localised forms of religious regulation can diverge from national norms, either through the application of customary law or through state withdrawal from effective enforcement.

Preliminary comparisons with existing subnational democracy measures for Mexico support the diagnostic value of FoRB spatial variance, but not for Argentina. Extending this analysis awaits comparable measures for Brazil, Colombia, Peru, and other countries where subnational democracy data remain unavailable. The absence of comparable subnational democracy data complicates cross-national comparison and limits the interpretive leverage of FoRB indicators beyond isolated case studies.

Finally, there are critical normative risks in overreliance on national-level data. If rights-based policymaking or international reporting instruments draw exclusively from static indicators, they may inadvertently legitimize regimes that persecute religious minorities at the subnational level or temporally while maintaining plausible national averages. Conversely, they may overlook emerging threats in countries undergoing democratic backsliding or religious politicisation. In either case, the result is the same: blind spots in protection, accountability, and prevention.

Beyond measurement, the VID's primary value lies in expanding analytical capacity. By providing subnational, event-level data, it enables researchers to leverage within-country variation for both descriptive and causal inference. Scholars can now examine questions previously impossible to address: What subnational conditions predict FoRB violations? How do incidents correlate with other forms of rights restrictions at the local level? Do FoRB violations precede or follow democratic backsliding in specific territories? What interventions successfully reduce religious violence in similar contexts? These questions require disaggregated data that existing indices cannot provide. Meantime, we can additionally explore the usefulness of alternative ranking systems that could usefully complement existing ones. Subnational analysis could be used to provide worst state versus worse subnational entity level comparisons. Such comparisons could usefully provide fresh insights into the harsh realities experienced by each country in at least one subnational area.

## References

- Achilov D, Shaykhutdinov R (2013) State regulation of religion and radicalism in the post-communist Muslim republics. *Problems of Post-Communism* 60(5): 17–33.
- Buehler M (2013) Subnational Islamization through secular parties: Comparing Shari'a politics in two Indonesian provinces. *Comparative Politics* 46(1): 63–82.
- Cesari J (2016) Religion and democratisation: When and how it matters. *Journal of Religious and Political Practice* 2(2): 131–134.
- Coppedge M, Gerring J, Lindberg SI, et al. (2021) V-Dem Codebook v11.1. Varieties of Democracy (V-Dem) Project.
- Driessen MD (2014) Religion and Democratization: Framing Religious and Political Identities in Muslim and Catholic Societies. Oxford University Press, Oxford. <https://doi.org/10.1093/acprof:oso/9780199329700.001.0001>
- Fallon SM (2013) Justice for all: American Muslims, Sharia law, and maintaining comity within American jurisprudence. *Boston College International and Comparative Law Review* 36(1): 153–182.
- Fox J (2021) What is religious freedom and who has it? *Social Compass* 68: 321–341.
- Fox J (2024) Religion and State Codebook, Round 4.07. <https://ras.thearda.com> (accessed 21 October 2024).
- Fox J, Finke R, Mataic DR (2018) Societal discrimination and religious minorities. *Interdisciplinary Journal of Research on Religion* 14: 1–37.
- Gelman A (2005) Analysis of variance: why it is more important than ever. *The Annals of Statistics* 33(1): 1–53.
- Gervasoni C (2010) Measuring variance in subnational regimes: Results from an expert-based operationalization of democracy in the Argentine provinces. *Journal of Politics in Latin America* 2(2): 13–52.
- Gibson EL (2005) Boundary control: Subnational authoritarianism in democratic countries. *World Politics* 58(1): 101–132.
- Gibson EL (2013) *Boundary Control: Subnational Authoritarianism in Federal Democracies*. Cambridge: Cambridge University Press.
- Giraudy A (2010) The politics of subnational undemocratic regime reproduction in Argentina and Mexico. *Journal of Politics in Latin America* 2(2): 53–84.
- Giraudy A (2015) *Democrats and Autocrats: Pathways of Subnational Undemocratic Regime Continuity within Democratic Countries*. New York: Oxford University Press.
- Grim BJ, Finke R (2006) International religion indexes: Government regulation, government favoritism, and social regulation of religion. *Interdisciplinary Journal of Research on Religion* 2: 1–40.
- Grim BJ, Finke R (2011) *The Price of Freedom Denied: Religious Persecution and Conflict in the Twenty-first Century*. New York: Cambridge University Press.

- Harbers I, Bartman J, van Wingerden E (2019) Conceptualizing and measuring subnational democracy across Indian states. *Democratization* 26(7): 1154–1175.
- Harbers I, Ingram M (2014) Democratic institutions beyond the nation state: Dissimilarity in federal countries. *Government and Opposition* 49(1): 24–46.
- Haynes J (2016) Religion and democratisation: What do we now know? *Journal of Religious and Political Practice* 2(2): 267–272.
- Helbling M, Traunmüller R (2016) How state support of religion shapes attitudes toward Muslim immigrants: New evidence from a sub-national comparison. *Comparative Political Studies* 49(3): 391–424.
- Hummel D (2020) Legislating Islamophobia: The factors for the existence of anti-sharia laws in the United States. *Public Policy and Administration* 37(3): 317–341.
- Kim E (2014) Islamic law in American courts: Good, bad, and unsustainable uses. *Notre Dame Journal of Law, Ethics & Public Policy* 28(1): 287–307.
- Klocek J (2019) Opportunities and challenges for international religious freedom research to inform U.S. foreign policy. *International Journal for Religious Freedom* 12: 85–96.
- Klocek J, Petri DP (2023) Measuring subnational variation in freedom of religion or belief violations: Reflections on a path forward. *The Review of Faith & International Affairs* 21(2): 1–12.
- Koesel KJ (2014) *Religion and Authoritarianism: Cooperation, Conflict, and the Consequences*. Cambridge: Cambridge University Press.
- Künkler M, Leininger J (2009) The multi-faceted role of religious actors in democratization processes: Empirical evidence from five young democracies. *Democratization* 16(6): 1058–1092.
- Lebedeva I (2013) Analysis of variance in social research: Problem of qualitative interpretation.
- Lührmann A, Tannenberg M, Lindberg SI (2020) Regimes of the world (RoW): Opening new avenues for the comparative study of political regimes. *Politics and Governance* 8(3): 1–12.
- Marshall K (2021) Towards enriching understandings and assessments of freedom of religion or belief: Politics, debates, methodologies, and practices. CREID Working Paper 6. Brighton, UK: Coalition for Religious Equality and Inclusive Development.
- Martínez-Torres J (2020) Religious freedom and democracy: Interactions and implications. *Journal of Human Rights* 19(2): 110–125.
- O'Donnell G (1993) On the state, democratization and some conceptual problems: A Latin American view with glances at some post-communist countries. *World Development* 21(8): 1355–1369.
- Petri DP (2022) The tyranny of religious freedom rankings. *The Review of Faith & International Affairs* 20(1): 82–88.
- Petri DP (2023) Challenges to religious freedom in the indigenous communities of Latin America: The case of the Nasa (Colombia). *International Journal for Religious Freedom* 16(2): 117–139.

- Petri DP, Glasius ME (2022) Vulnerability and active religious behavior: Christians and crime syndicates in Mexico. *Human Rights Quarterly* 44(3): 514–536.
- Petri DP, Klocek J (2025) External and internal threats to the freedom of religion or belief of indigenous peoples in Latin America. *Religions* 16(2): 209.
- Petri DP, Wisdom KJ, Bainbridge JT (2025) Tracking religious freedom violations with the Violent Incidents Database: A methodological approach and comparative analysis. *Data* 10(5): 72.
- Pritchett L (1997) Divergence, big time. *Journal of Economic Perspectives* 11(3): 3–17.
- Reguart Segarra N (2021) *La libertad religiosa de los pueblos indígenas*. Valencia: Tirant. <https://editorial.tirant.com/es/ebook/la-libertad-religiosa-de-los-pueblos-indigenas-nuria-reguart-segarra-9788413786735> (accessed 2 December 2024).
- Salim A (2015) *Contemporary Islamic Law in Indonesia: Sharia and Legal Pluralism*. Edinburgh: Edinburgh University Press.
- Schirrmacher T (2016) Plausibility test of Pew reports on restrictions of religion: Cross-sectional country comparison for the years 2007 to 2014. *IIRF Reports* 2. <https://iirf.global/?p=1452>
- Sotelo Aguilar O (ed.) (2017) *Tragedia y crisol del sacerdocio en México*. Mexico City: Centro Católico Multimedial/Ayuda a la Iglesia Necesitada–ACN México.
- Stepan A (2000) Religion, democracy, and the twin tolerations. *Journal of Democracy* 11(4): 37–57.
- Woods O (2018) Spaces of the religious economy: Negotiating the regulation of religious space in Singapore. *Journal for the Scientific Study of Religion* 57(3): 531–546.
- Yang F (2013) A research agenda on religious freedom in China. *The Review of Faith & International Affairs* 11(2): 6–17.

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